

ABSTRACT

SPINDLE MOTOR WITH AN AERODYNAMIC AND HYDRODYNAMIC
ASSEMBLY

A spindle motor (10) including a stator component (16), a rotor component (18), including a hub (14) for supporting one or more discs, and a bearing assembly between the
5 components, formed of a journal bearing (54) and a thrust bearing (52), wherein the journal bearing (54) is an aerodynamic bearing and the thrust bearing is adapted to function in a bi-directional manner and includes an annular member (30) projecting radially from one of the components into an associated recess (76) formed in the other of the components. Preferably, the annular member has two opposed bearing faces (68,70) arranged adjacent corresponding
10 bearing surfaces of the recess, and a hydrodynamic bearing is formed between the respective bearing faces and surfaces.

(Figure 1 & 2)